POLAROID SX-70
LAND CAMERA
MODEL 3

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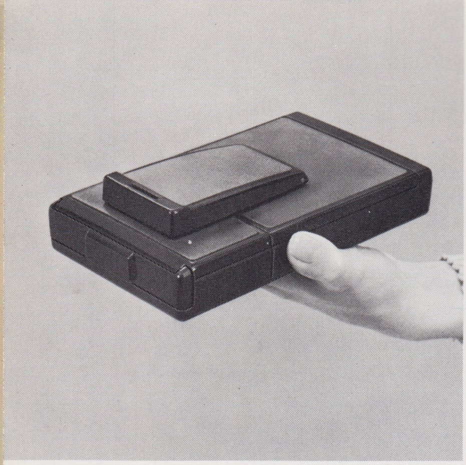
This booklet tells you how to make good pictures with your Polaroid SX-70 Land Camera, Model 3.

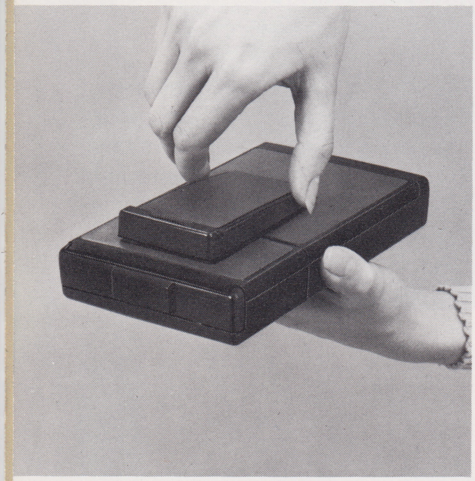
If you should ever need additional information to help you get the best results from your SX-70 camera and film, please call us. Our Customer Service representatives are always glad to help.

We can be reached on weekdays from 8:00 a.m. to 5:00 p.m., your local time. From anywhere in the U.S.A. except Massachusetts, call 800-225-1384 toll-free. From Massachusetts and anywhere in Canada, call collect (617) 864-4568.

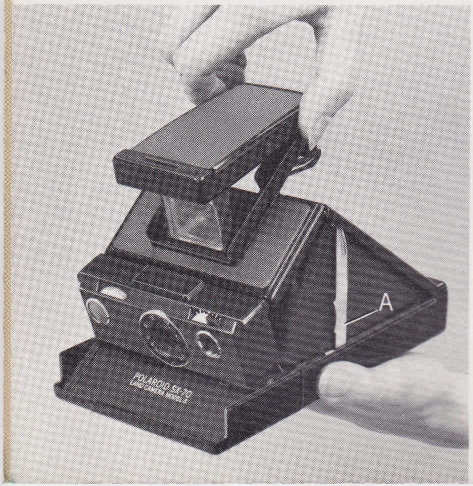
OPENING



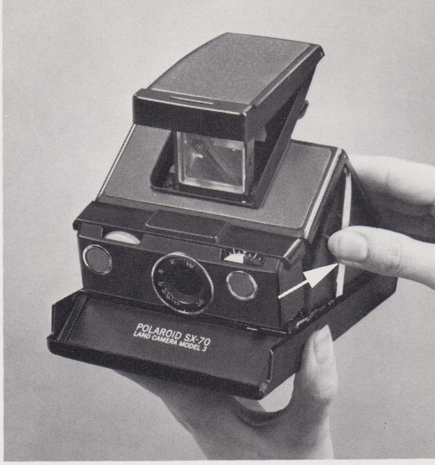
Hold the camera in the palm of your left hand.



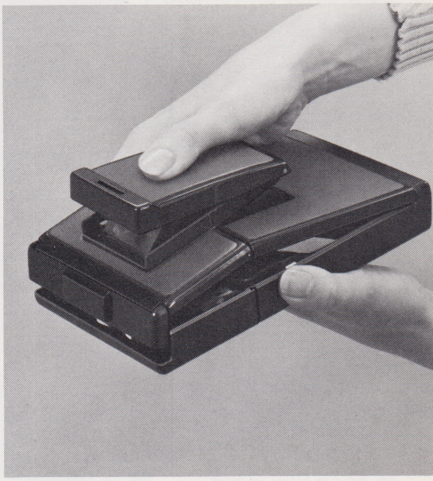
Lift the small end of the viewfinder cap, and pull it straight up . . .


A
POLAROID SX-70
LAND CAMERA MODEL

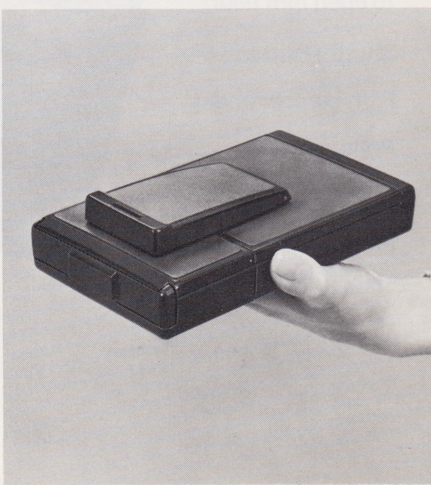
. . . until the cover support (A) locks.


POLAROID SX-70
LAND CAMERA MODEL 3

Push the cover support toward the rear of the camera.

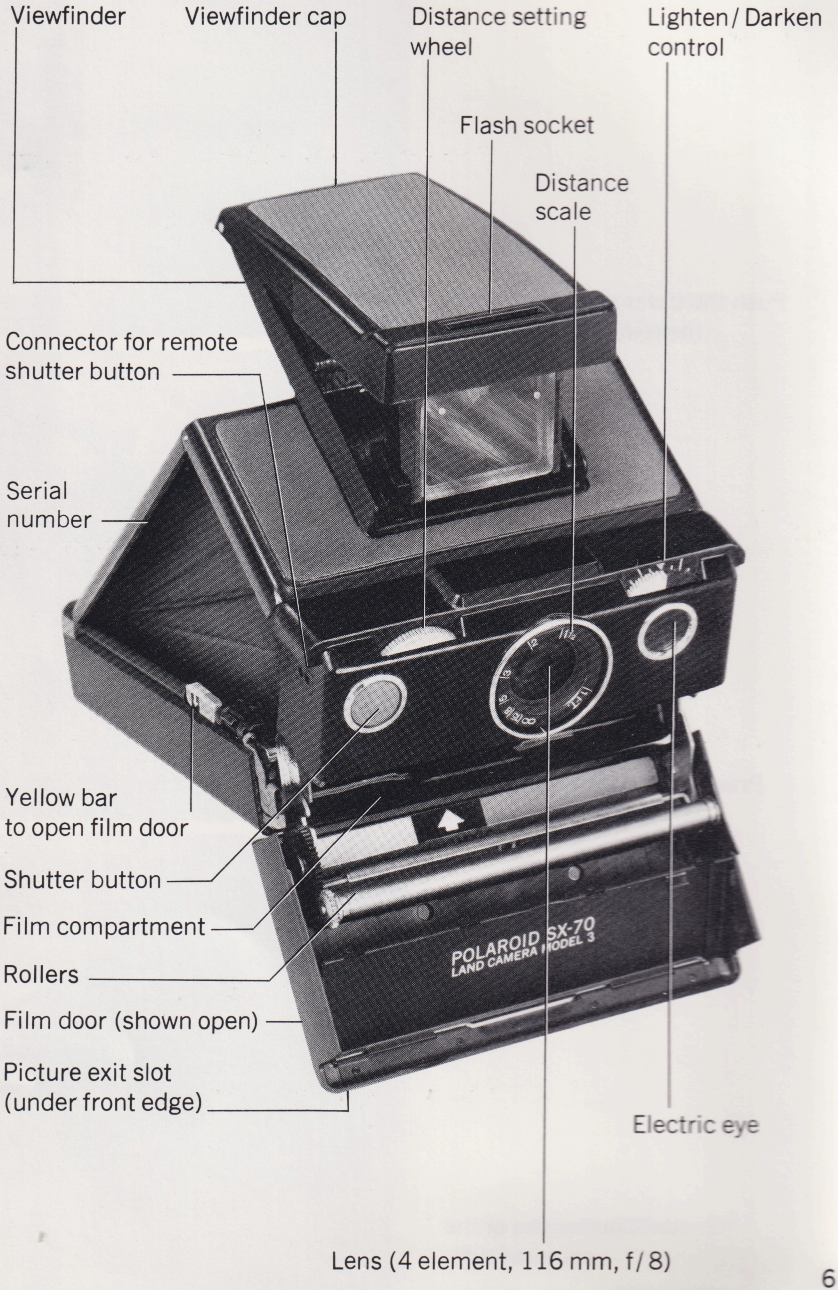


Press down on the viewfinder cap slowly but firmly . . .



. . . until **both** sides of the camera latch.

PARTS OF THE CAMERA


Viewfinder
Viewfinder cap
Distance setting wheel
Lighten / Darken control
Flash socket
Distance scale
Connector for remote shutter button
Serial number
Yellow bar to open film door
Shutter button
Film compartment
Rollers
Film door (shown open)
Picture exit slot (under front edge)
Electric eye
Lens (4 element, 116 mm, f/8)
POLAROID SX-70
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Each SX-70 film pack provides ten 3⅛ x 3⅛ inch pictures. In each pack is a flat battery to supply power for pictures made with the pack.

The picture counter on the rear of the camera is blank when the camera is empty, and sets to 10 when a pack is inserted and the film door is closed. After you take a picture, the counter will indicate how many pictures are left in the film pack. After 10 pictures, a 0 will appear, and the flash will not fire.

If you should reinsert a partly used or empty pack, the counter will automatically reset to 10.

DISTANCE SETTING

In order to get sharp and clear pictures with Model 3, you must set the distance scale accurately.

Before you do this, look through the viewfinder and frame your subject the way you want it in the finished picture. Then estimate or measure the camera-to-subject distance. After a little practice, you should be able to set the distance scale correctly quite rapidly.

HOW TO SET THE DISTANCE SCALE

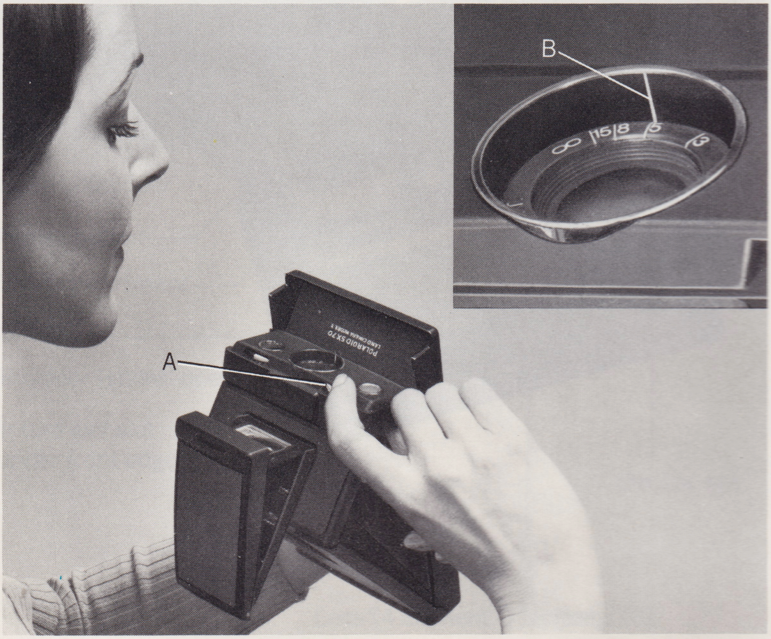
1. Estimate or measure the distance from the lens to the subject. When you are closer than 3 feet, it is best to measure the distance from the camera lens to the subject accurately.

2. Set the scale by rotating the wheel (A) with the right forefinger until the correct distance mark is opposite the line (B), below the lens. In the picture below, the lens is set for 5 feet.

If you look down over the camera as shown, you can read the distance mark right way up as you set it, and you can then shoot without changing your hold on the camera.

Outdoors, if your subject is more than 15 feet away or if you are shooting a distant scene, move the scale all the way to infinity (∞).

3. After setting the distance, stay at the distance you have set, frame the subject through the viewfinder, and take the picture.

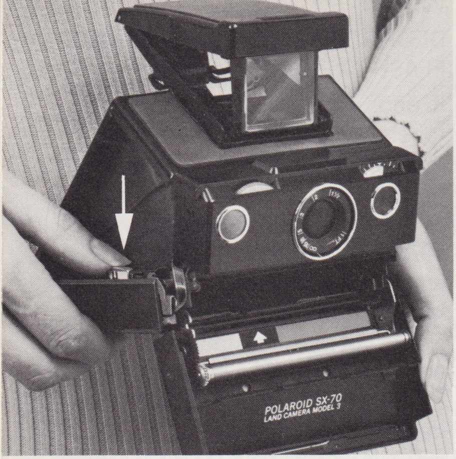


DISTANCE SETTING INFLUENCES FLASH EXPOSURE

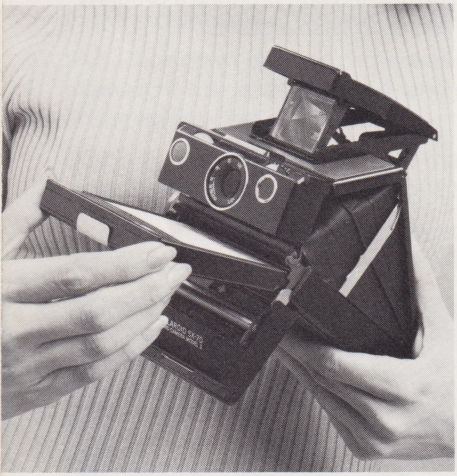
In addition to setting the camera for sharp focus, the distance setting also influences exposure for flash pictures. The camera automatically sets the right exposure for the distance to which the lens is set – from about 10½ inches to about 20 feet. If the subject is not at the distance to which the lens is set, the picture may be too light or too dark. However, the camera can adjust for minor errors and still produce a properly exposed flash picture.

You may at first want to measure the distance between the camera and your subject, in order to set the distance scale correctly. After measuring distances a few times, you should soon be able to estimate them quickly, and to set the distance scale accurately.

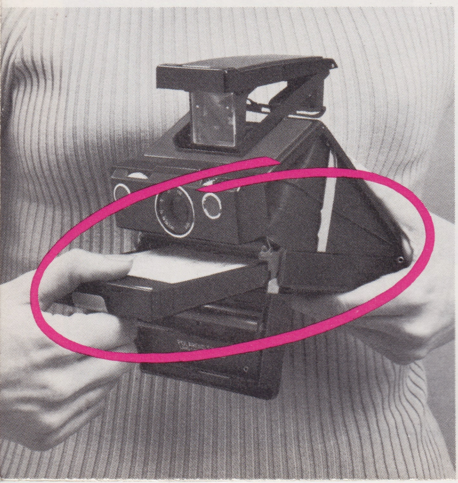
LOADING & UNLOADING


POLAROID SX-70
LAND CAMERA MODEL 3

Push down on the yellow bar to open the film door, which should drop down by itself. Never force the door open.

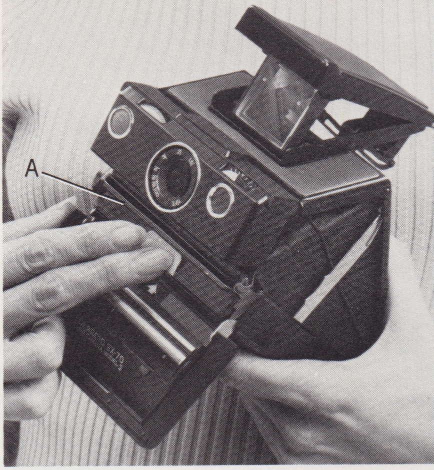


Insert a film pack, holding it by the sides, as shown.



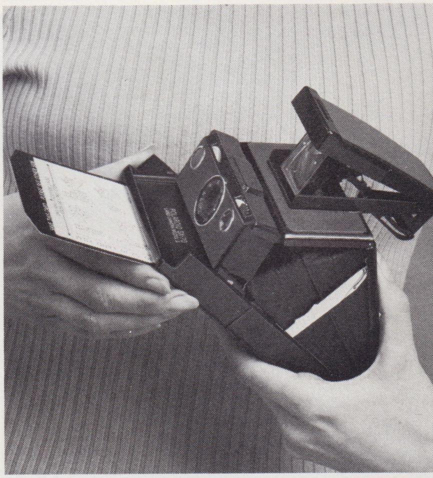
Do not hold it as shown in this picture. By squeezing too hard, you could damage the film.

Push the pack in all the way, until a narrow strip (A) along the end of the pack snaps open.

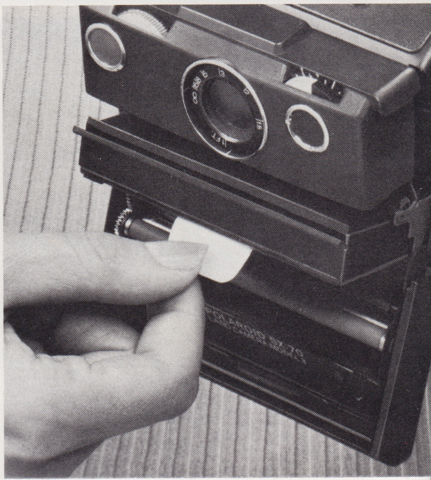


Close the film door. The camera will make a sound and the film cover will come out. Remove it and save it to order copies of your favorite SX-70 pictures.

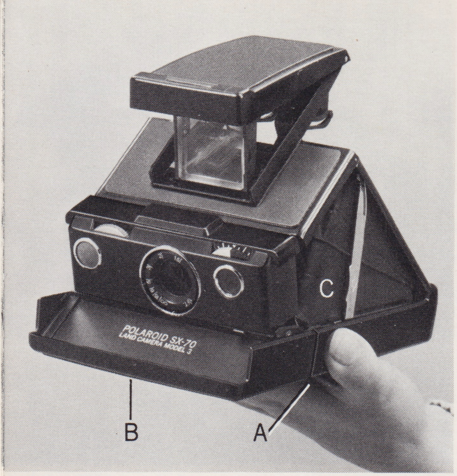
If the film cover does not come out, see page 30.



To remove a film pack: Open the film door. Remove the pack by pulling on the yellow tab.

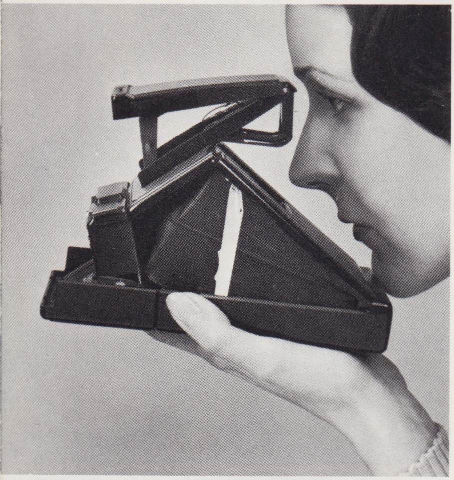


HOLDING THE CAMERA

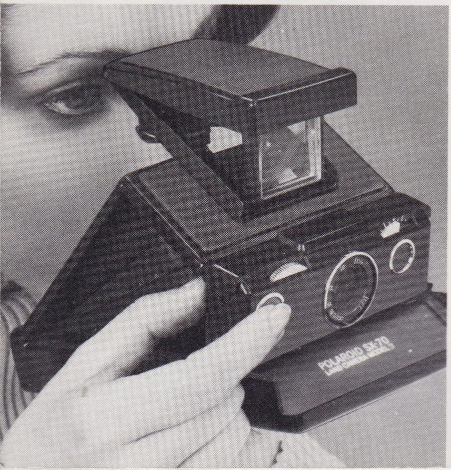


Hold the camera in your left hand, thumb and fingers behind the hinge (A).

Your fingers should not block the exit slot (B) where the picture comes out of the camera, and your thumb should not touch the bellows (C) where any pressure might interfere with movement of the mechanism inside the camera.



Raise the camera, holding it so your eye is close to the viewfinder eyepiece, as shown. Look through the center of the eyepiece.

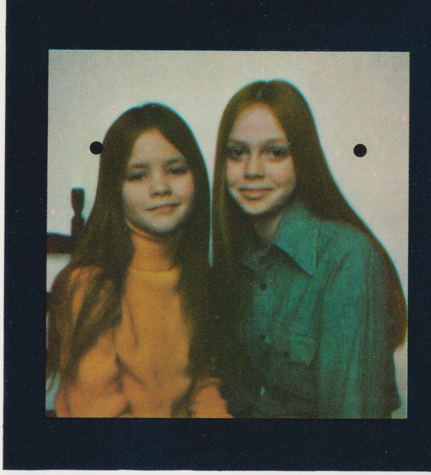


Place your right hand: the thumb should rest comfortably against the rear surface of the shutter housing, without touching the bellows. Your right forefinger goes on the shutter button. The other fingers should be curled into the palm of the hand, as shown.

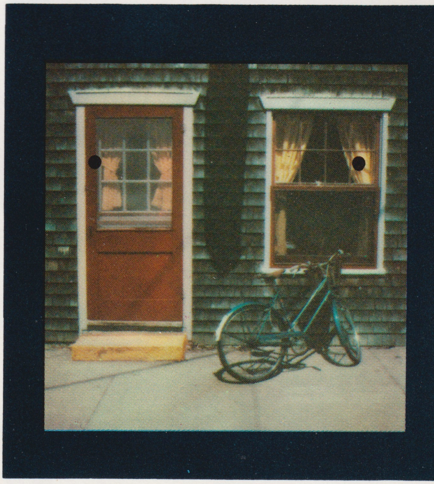
VIEWING AND FRAMING

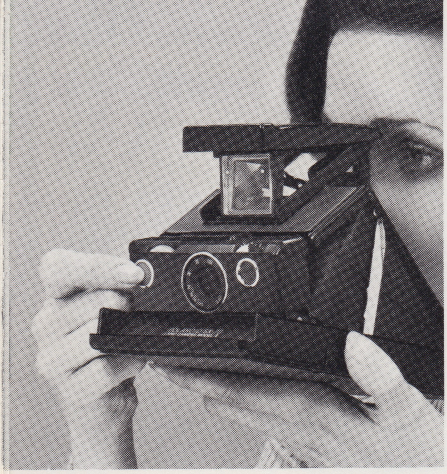
When you look through the viewfinder, you should see a square black frame around the picture area. If you cannot see all four corners of the frame, move your eye slightly closer, and be sure it is centered on the eyepiece.

The two dots in the viewfinder are intended to help you frame for close-up pictures only (from 10½ inches to 1 foot). Their use is explained on page 24.



From 2½ feet to distant scenes, what you see through the viewfinder is approximately what you will get in your picture. Frame with the full area of the viewfinder. Do not use the two dots for framing.

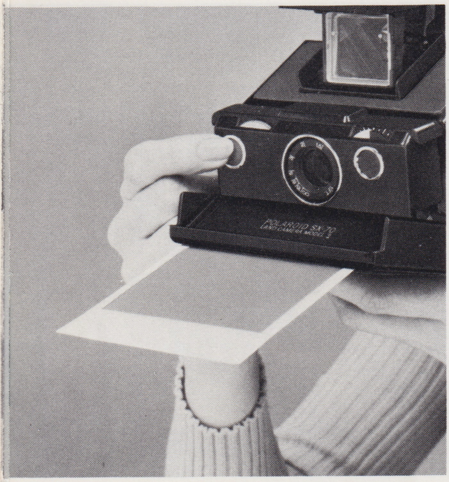




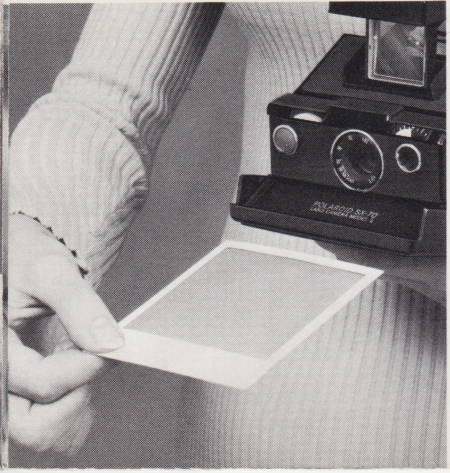
SHOOTING

When you have set the distance scale, hold the camera up to your eye and frame your subject carefully in the viewfinder.

Hold the camera steady and gently press the shutter button. **Hold the button in . . .**


POLAROID SX-70
LAND CAMERA MODEL 2

. . . until the picture comes out of the exit slot, and all camera sounds stop.


POLAROID SX-70
LAND CAMERA MODEL 2

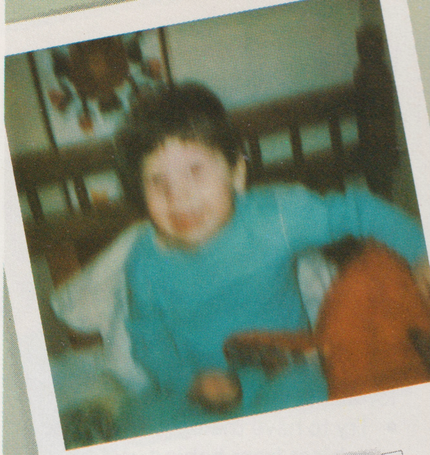
Remove and handle the picture by its wide border. Watch it develop by itself.

Do not bend, squeeze or cut the picture.

CAMERA OR SUBJECT MOVEMENT

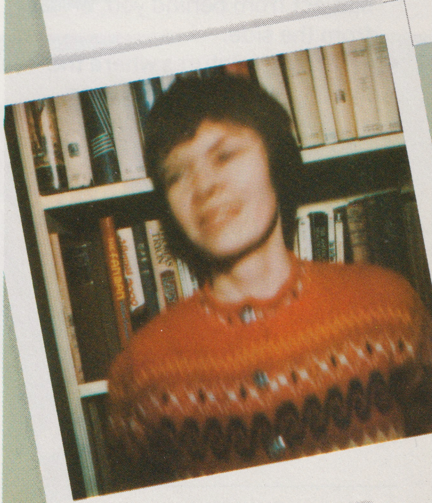
In dim light or when using flash, you might get a blurred picture if either the camera or the subject moves during the exposure. (Also, neither you nor your subject should move after hearing the first "click", which occurs before the camera actually takes the picture.)

To assure sharp and clear pictures under all conditions, avoid these:



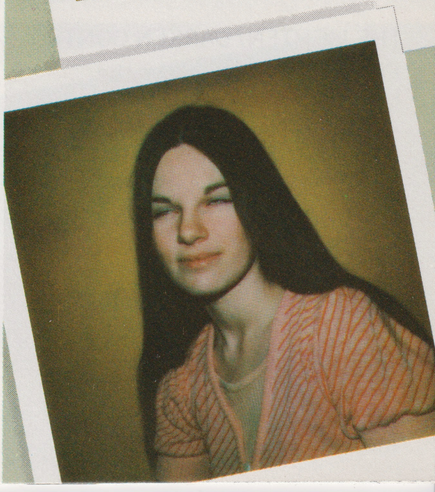
CAMERA MOVEMENT (top)

Hold the camera steady from the moment you press the shutter button until the picture comes out of the camera.



SUBJECT MOVEMENT (center)

Generally, ask your subject to hold still until the picture comes out of the camera. The subject should not move after hearing the first "click".



CLOSED EYES (bottom)

With flash, the firing of the flashbulb follows a fraction of a second after the first "click" of the camera. Some subjects tend to anticipate the flash, and blink their eyes when they hear the "click." The result is that their eyes are closed at the moment the picture is taken. Ask the subject to try not to blink until after the flash has fired.

DAYLIGHT PICTURES

THE ELECTRIC EYE

Exposure for daylight pictures is controlled by an electric eye that automatically sets the lens opening and shutter speed according to the light conditions it "sees" in the scene.

LIGHTING

Two lighting rules to remember for daylight pictures:

- Try to have the light fall on the subject from behind you, or from the side.
- Try to take pictures where the lighting on the scene is even – about as bright on the background as on the subject.

Excellent lighting conditions for outdoor pictures of people are found on bright, hazy days, or when a cloud covers the sun. Another good light is bright open shade – for example, next to a building on a sunny day with nothing overhead to block the light from the sky.

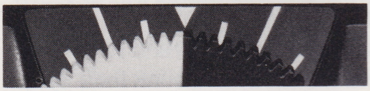
(top)
If the background is a large part of the picture, and the light on the background is brighter than the light on the subject, the electric eye will set the correct exposure for the background. Then the subject will be too dark. Move in close to your subject so the background light will have little effect on the exposure setting.

(center)
If the background is a large part of the picture, and the background is much darker than the subject, the electric eye will set the correct exposure for the background. The subject will be too light. This time, move in close to make your subject darker.

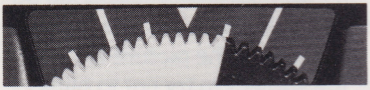
THE LIGHTEN/DARKEN CONTROL

For most pictures, leave the Lighten/Darken control at the normal position (shown at right). However, if your main subject is too light or too dark in a daylight picture, you can use the L/D control to adjust the exposure for another picture in the same location, in the same lighting.

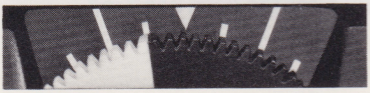
For a small change, turn it one mark (shown at right); for a greater change, move it two marks or more.



NORMAL



LIGHTEN



DARKEN

The control automatically returns to the normal position when the camera is closed.

HL

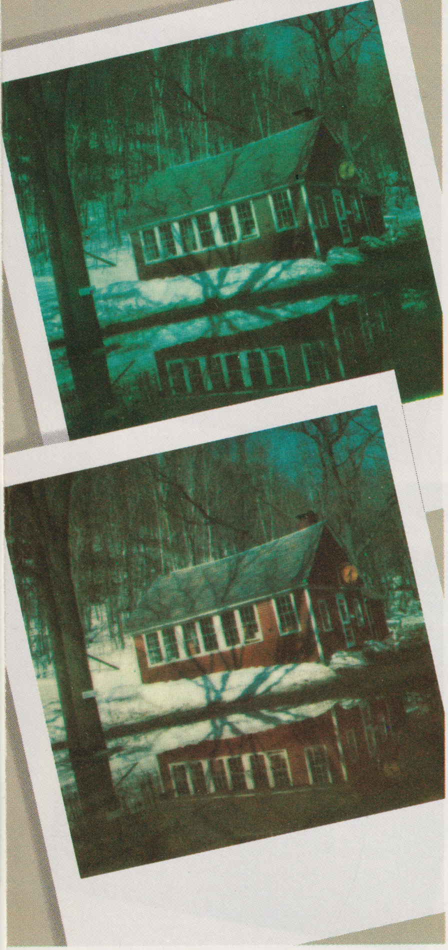
FRAMING

Your SX-70 viewfinder shows you what you will get in your finished picture for anything between a distant scene and a subject 2½ feet from the camera. Compose the picture carefully in the whole viewfinder before you press the shutter button.

For subjects closer than 2½ feet, see the special viewfinder instructions on page 24.

Move in close when possible; make your subject the main point of interest.

Keep the background simple. You can often eliminate distracting elements from a picture by changing camera angle. Try shooting down from a high angle, using the ground as background.



COLD AND HOT WEATHER PICTURES

You can take SX-70 pictures in a wide variety of temperatures, but should take special care of developing pictures when the temperature is below 60°F (15°C) or above 85°F (30°C).

IN COLD WEATHER

At temperatures below 60°F (15°C), keep the camera and film warm – inside your coat or in a warm inside pocket – until you are ready to take a picture. If the camera and film become cold, development may be affected, causing pictures to be too dark and too blue (top picture). To keep this effect to a minimum (lower picture), turn the Lighten / Darken control one or two marks toward Lighten before taking a picture. Put the developing picture in a warm inside pocket as soon as it comes out of the camera. Do not bend it.

IN HOT WEATHER

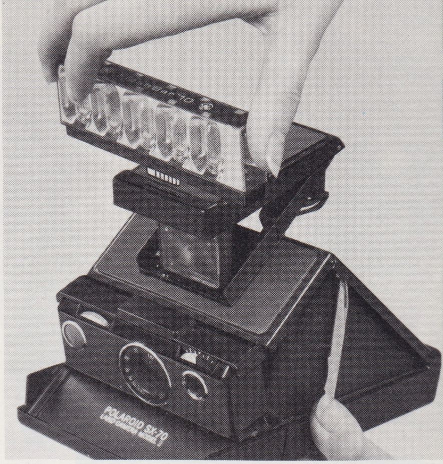
At temperatures over 85°F (30°C), development may be affected, causing pictures to be lighter than normal. Turn the Lighten / Darken control one or two marks toward Darken before taking a picture. While the picture is developing, don't let it "bake" in the heat of direct sunlight or on a surface warmed by the sun.

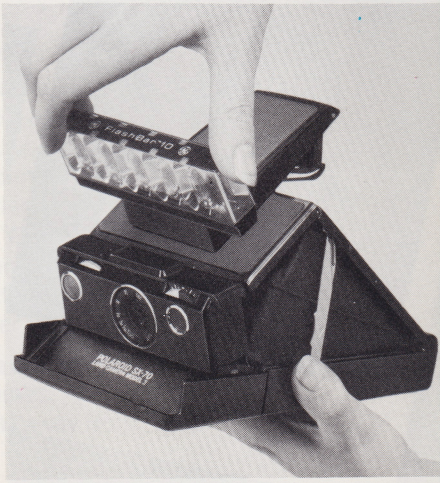
FLASH PICTURES

As a general rule, you need to use flash indoors. You can take flash pictures of subjects from 10½ in. up to about 20 ft. from the camera.

Insert the FlashBar array into the socket on the top front of the viewfinder, pushing it in firmly. You must depress the viewfinder cap all the way, as shown, in order to push the FlashBar in firmly. Release the viewfinder slowly.

When all 5 bulbs on one side have been fired, remove the FlashBar and turn it around for five more flashes. When all the bulbs have been fired, remove the FlashBar. Pictures taken with a dead FlashBar in place will not be correctly exposed.


FlashBar 10
POLAROID SX-70
LAND CAMERA MODEL 3

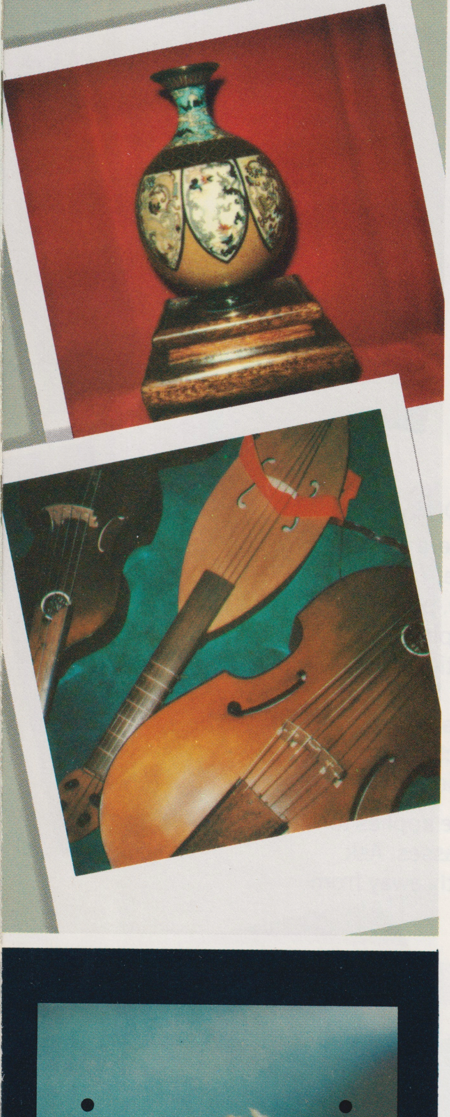

FlashBar 10
POLAROID SX-70
LAND CAMERA MODEL 3

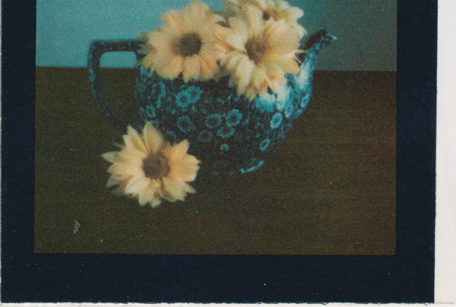
Three points to remember when using flash:

1. SET DISTANCE CAREFULLY

The distance setting affects the exposure for flash pictures. If the distance scale is not set accurately, a flash picture may be too light or too dark. Do not use the Lighten / Darken control to correct for flash pictures that are too light or too dark (see page 29).

POLAROID SX-70
∞
15
8
5
3





CLOSE-UPS

The special design of the SX-70 lens lets you take close-ups without special accessories. You can get as close as 10½ inches. For best results, measure the lens-to-subject distance and set the distance scale carefully. The closest distance marked on the scale is 1 foot. However, by rotating the lens as far forward as it will go, you can get a sharp picture as close as 10½ inches. Also, be sure that you are framing properly for the distance at which you are shooting (see below).

For the best close-up pictures, use the camera with accessory Tripod Mount #111 and a tripod, or some other firm support. You will get the best results in bright sunlight, open shade, or with flash.

The closest SX-70 pictures will show your subject at half its actual size. Thus, the SX-70 system opens up a new world of beautiful and exciting close-up pictures.

FRAMING FOR CLOSE-UPS

10½ INCHES TO 1 FOOT:

Frame your subject within the two dots and the lower edge of the viewfinder (bottom left).

If you use the whole viewfinder area, part of your subject may not appear in the finished picture.

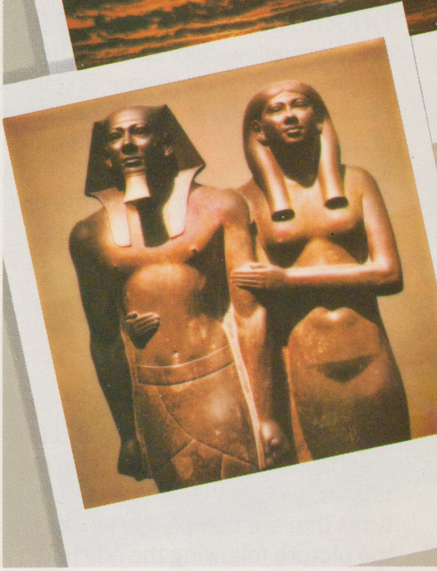
1 FOOT TO 2½ FEET: When you are 2½ feet from the subject, use the whole viewfinder area; at 1 foot, frame your picture with the aid of the two dots. When you are between 2½ feet and 1 foot from the subject, the correct frame outline will lie somewhere between the above.

TIME EXPOSURES

In dim light, the SX-70 can make automatic time exposures as long as 14 seconds. For best results, the light on the scene should be fairly even. Indoors, a bright light or window in the scene may "fool" the electric eye, causing the rest of the picture to be too dark.

SX-70 film gives the most natural colors when it is exposed in sunny daylight or with the light from a FlashBar, which closely matches daylight.

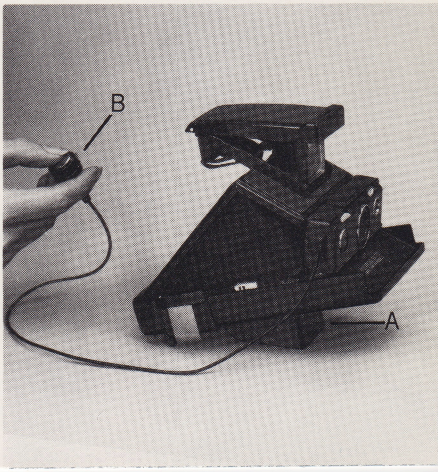
You can also get beautiful pictures indoors with other kinds of lighting. Although pictures taken indoors without flash may not faithfully reproduce the colors of the subject, they often have a charm and beauty that makes them even more attractive and interesting than flash pictures of the same subject.

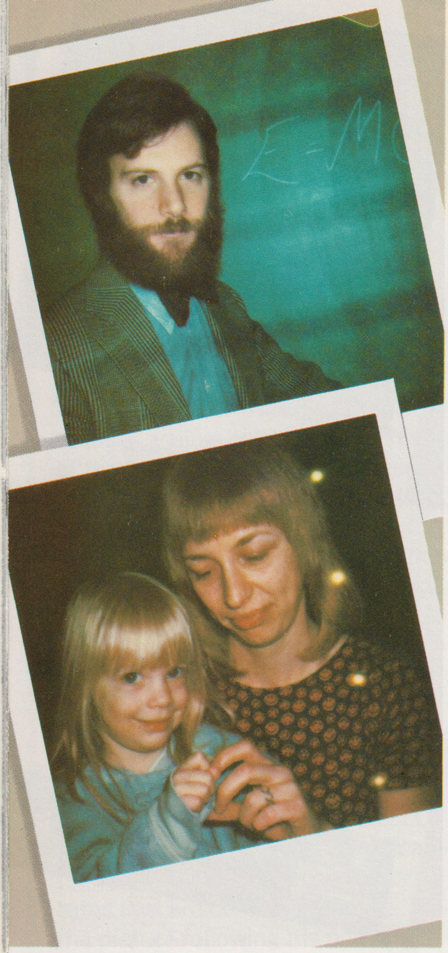


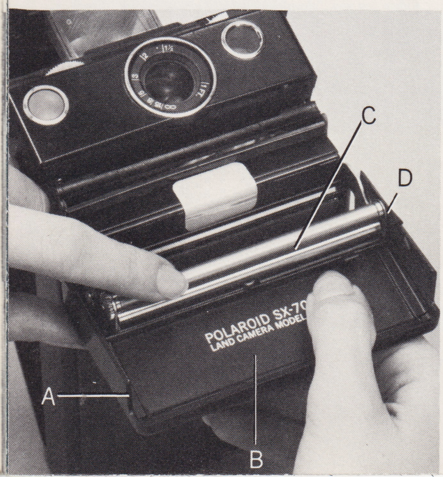
HOW TO TAKE TIME EXPOSURES

The camera should be on a firm support – a tripod is best – and you will need accessory Tripod Mount #111 (A). The accessory Remote Shutter Button #112 (B) is helpful in preventing camera shake.

Without moving the camera, press the shutter button gently, holding it in for at least a second. Then you can let go of the button and the camera will do the rest by itself. When the electric eye has completed timing the exposure, the shutter will close and the picture will come out and start to develop.







DIRTY ROLLERS

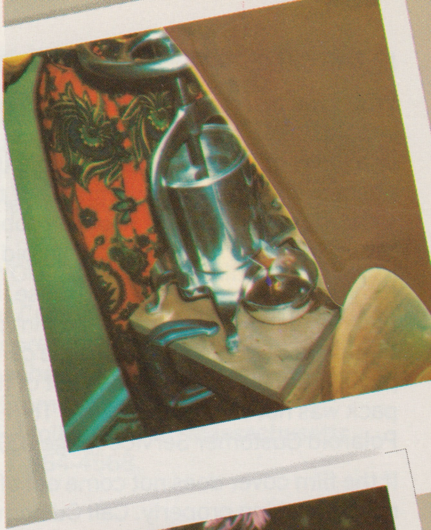
The bar pattern shown on the first picture may be caused by dirt near the ends of the rollers. The repeated spot pattern shown on the second picture may be caused by specks of dirt somewhere on the roller surface. To avoid these problems:

Before loading each new film pack, examine the rollers inside the film door. To prevent dust from entering the film compartment, it's best to do this while an empty film pack is still in the camera. Rest the back end of the camera on the table, or support it in some other way to prevent it from dropping. Open the film door (A) and depress the light shield (B) to expose the rollers (C). Use a finger to rotate the rollers, which should move freely. Remove any specks of dirt from them with a clean, lint-free cloth, moistened with water if necessary. Pay special attention to the raised ends (D) on the top roller, near which dirt may collect. The rollers must be kept clean; inspect them regularly.

Should it ever be necessary to clean the picture exit slot, insert a stiff piece of paper (such as the film cover ejected from a new film pack) in front of the rollers and under the light shield. Push it until it comes out of the picture exit slot. Move it in the slot until it removes any developer chemicals that may be trapped there. Be careful not to force the slot open as it can be permanently bent.

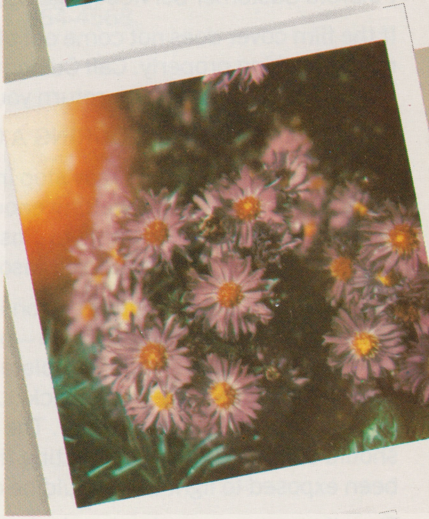
IF PART OF THE PICTURE IS MISSING

The film pack was probably damaged before the picture unit went through the rollers. A side effect of this problem can be leakage of developer chemicals onto the rollers, the picture exit slot, and the back of the picture. If your picture looks like this, check the back of it. If there are developer chemicals on the back, clean the rollers and the picture exit slot as described on the previous page. Avoid contact with the developer chemicals; please read the CAUTION notice on the back of the film package.



FOGGED FILM

White areas in the picture indicate that the film was fogged before it was exposed. Removing and reinserting a film pack in the light can cause this. There is seldom reason for removing an unfinished pack. If it is removed, the top picture will always be fogged; pictures beneath it in the pack may be fogged in one corner. If it is ever necessary to remove and reinsert a film pack, do so in dim light.



FLASH PICTURES TOO LIGHT OR TOO DARK

The distance scale was not set to the correct camera-to-subject distance. See pages 8 and 21.

DAYLIGHT PICTURES TOO LIGHT OR TOO DARK

The electric eye was probably "fooled" by uneven lighting (see page 16), or temperature affected development (see page 20).

IF THE CAMERA DOES NOT EJECT THE FILM COVER OR FILM

When you insert a new film pack or press the shutter button, the camera should do two things: make its usual motor noise and eject the film cover or a piece of film. If it does not do either, the battery in the film pack may not be working. Try another pack. If the film cover comes out this time, the battery in the first pack was probably dead. We will replace it if you return it to your dealer or to Polaroid Customer Service (page 33).

If the camera makes its usual noise, but does not eject the film cover or film, the cause may be with the film pack, although not related to the battery in it, or it may be with the camera. Check by inserting another pack. If the film cover comes out of this pack, it indicates that the first pack was not working properly. To replace it, return it to your dealer or to Polaroid Customer Service (page 33).

If the film cover does not come out of the second pack, the camera may not be working properly. Call Customer Service at the number given on page 31 and, if necessary, return your camera as described on page 34.

IF THE CAMERA STOPS DURING A CYCLE

In rare cases, the camera may stop in the middle of an operating cycle, because the motor is not getting enough power to continue. (When this happens, you may not be able to close the camera fully. Never try to force it shut.) There are two possible reasons why the camera may stop:

One is jabbing at the shutter button instead of holding it until the picture comes out. The remedy is simple – press the shutter button again and hold it. The camera should complete its cycle. If it does not, open the film door in dim light and pull the pack out about an inch. Push the pack back in again and close the film door. The counter will reset to 10. The camera should complete its cycle, ejecting the top piece of film which will have been exposed to light and should be discarded.

The other reason may be that the battery in the film pack only had sufficient power to start the operating cycle, not to finish it. To solve this problem, remove the pack and insert an empty one – most empty packs still have some power in reserve. If the camera completes its cycle, indicating that the battery in the first pack is dead, return the pack to your dealer or to Polaroid Customer Service (page 33) for replacement.

If you do not have an empty pack, you can use a fresh one, but you do risk losing one or more pieces of film. When you insert a fresh pack, it's possible that the film cover will stick out of the pack and the door will not close. Remove the film cover and close the door. If you can close the door, but the film cover is ejected part way, open the film door and remove the film cover by turning the rollers forward. Never try to force the cover through the rollers without first opening the film door.

If none of the suggested remedies makes your camera complete its cycle, call Customer Service at the number given below and, if necessary, return your camera for repair (page 34). Do not try to close it completely as this may damage the internal moving mechanism, which is in the mid-cycle position. For temporary storage or shipping, you can collapse the camera to the point where you feel a little resistance, but do not force it shut.

IF YOU EVER HAVE A PROBLEM WITH YOUR CAMERA OR FILM

Before you try anything else, call us. Our Customer Service department is as close as your telephone. One of our representatives will be glad to talk to you about your camera. We can be reached on weekdays from 8:00 a.m. to 5:00 p.m. your local time. From anywhere in the U.S.A. except Massachusetts call 800-225-1384 toll-free; from Massachusetts and anywhere in Canada, call collect 617-864-4568.

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